(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
4 June 2009 (04.06.2009)

PCT

(10) International Publication Number
WO 2009/069983 A3

(51) International Patent Classification:
A61K 38/16 (2006.01) *A61K 39/395* (2006.01)
A61P 3/04 (2006.01)

(21) International Application Number:
PCT/KR2008/007074

(22) International Filing Date:
28 November 2008 (28.11.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/947,697 29 November 2007 (29.11.2007) US
10-2008-0083194 26 August 2008 (26.08.2008) KR

(71) Applicant *(for all designated States except US)*: **HANMI PHARMACEUTICAL CO., LTD.** [KR/KR]; 893-5, Hajeo-ri, Paltan-myeon, Hwaseong-si, Gyeonggi-do 445-813 (KR).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **SONG, Dae Hae** [KR/KR]; 307-2403, Samsungsan Apt., Sillim 10-dong, Gwanak-gu, Seoul 151-704 (KR). **KIM, Min Young** [KR/KR]; 201-204, Byeoksan Apt., Jowon-dong, Jangan-gu, Suwon-si, Gyeonggi-do 440-708 (KR). **PARK, Young Jin** [KR/KR]; 845-1002, Byeokjeokgol 8-danji Apt., Yeongtong 2-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-725 (KR). **KANG, Eun Hee** [KR/KR]; 103-908, Daejin Apt., Samho-dong, Yangsan-si, Gyeongsangnam-do 626-270 (KR). **JUNG, Sung Youb** [KR/KR]; 651-1003, Sinnamusil Miju Apt., Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-470 (KR). **KWON, Se Chang** [KR/KR]; 10-1204, Keukdong Apt., Gwangjang-dong, Gwangjin-gu, Seoul 143-751 (KR). **LEE, Gwan Sun** [KR/KR]; 3-404, Wuchang Apt., Ogeum-dong, Songpa-gu, Seoul 138-739 (KR).

(74) Agent: **SON, Min**; 19th Floor, City Air Tower 159-9, Samseong-dong, Gangnam-gu, Seoul 135-973 (KR).

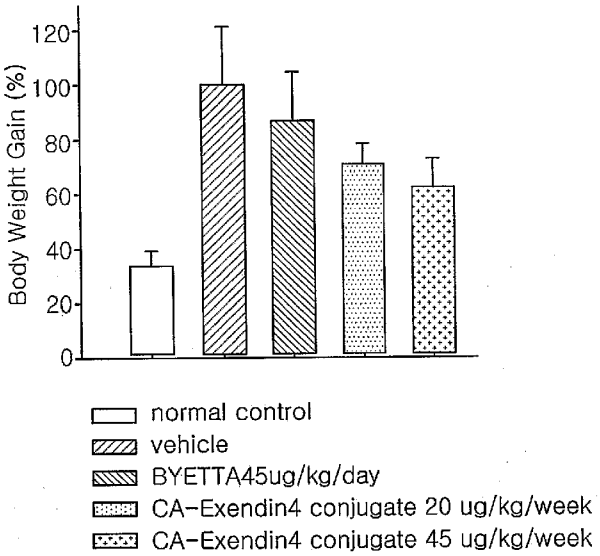
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ,

[Continued on next page]

(54) Title: A PHARMACEUTICAL COMPOSITION FOR TREATING OBESITY-RELATED DISEASE COMPRISING INSULINOTROPIC PEPTIDE CONJUGATE

[Fig. 1]



(57) Abstract: The present invention relates to a composition for treating obesity-related diseases comprising an insulinotropic peptide conjugate, more particularly, to a composition for treating obesity-related diseases comprising a conjugate prepared by covalently linking the insulinotropic peptide with a carrier substance via a non-peptidyl linker, and a method for treating obesity-related diseases by using the same. In particular, the composition for treating obesity-related diseases according to the present invention remarkably improves the efficacy of suppressing food intake and its duration to reduce body weight and body fat, thereby being useful for the treatment of obesity-related diseases.

WO 2009/069983 A3

TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
20 August 2009